



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/807,757      | 04/17/2001  | Gary K. Owens        | 00148-03            | 4147             |

7590                    07/01/2002

John P Breen  
1224 West Main Street Suite 1 110  
Charlottesville, VA 22903

[REDACTED]  
EXAMINER

PAPPU, SITA S

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 1636     | 9            |

DATE MAILED: 07/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Offic  
COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

| SERIAL NUMBER | FILING DATE | FIRST NAMED APPLICANT | ATTORNEY DOCKET NO. |
|---------------|-------------|-----------------------|---------------------|
| 09/807,757    | 04/17/2001  | Owens et al.          | 9426-016-228        |
|               |             |                       |                     |

| EXAMINER      |              |
|---------------|--------------|
| Sita S. Pappu |              |
| ART UNIT      | PAPER NUMBER |
| 1636          | 9            |

Please find below a communication from the EXAMINER in charge of this application

This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 C.F.R. § 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 C.F.R. §§ 1.821-1.825 for the reason(s) set forth on the attached Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures.

Sequences are disclosed in the specification but are not identified by their sequence identifiers (i.e. SEQ ID NO). For example, Figures 10, 12 and 13 discloses amino acid sequences, that are not identified by sequence identifiers either in Figures or in Brief description of Figures. Applicant is further reminded that amendment to the specification, and/or figures is required to comply with 37 C.F.R. 1.821(d). Each sequence disclosed in the specification and figures must be identified by its sequence identifier (i.e., SEQ ID NO:). Since the specification discloses sequences that are not identified by their sequence identifier, it is unclear if all disclosed sequences are included in the sequence listing. Applicant is advised that, a substitute CRF and paper copy of the Sequence Listing are required only if the sequences are not already included in the Sequence Listing. Applicant is reminded that the entire specification and figures should be reviewed for sequence disclosures.

APPLICANT IS GIVEN 30 days FROM THE DATE OF THIS LETTER WITHIN WHICH TO COMPLY WITH THE SEQUENCE RULES, 37 C.R.F. §§ 1.821-1.825. Failure to comply with these requirements will result in ABANDONMENT of the application under 37 C.F.R. § 1.821(g). Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 C.F.R. § 1.136. In no case may an applicant extend the period for response beyond the six month statutory period. Direct the response to the undersigned. Applicant is requested to return a copy of the attached Notice to Comply with the response.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Sita S. Pappu whose telephone number is (703) 305-5039. If the examiner cannot be reached, inquiries can be directed to Supervisory Patent Examiner Irem Yucel whose telephone number is (703) 305-1998. The fax number for the organization where this application is assigned is (703) 308-8724. Any inquiry of a general nature or relating to the status of this application should be directed to the Patent Analyst, Tracey Johnson, at (703) 305-2982.

*Anne-Marie Baker*  
ANNE-MARIE BAKER  
PATENT EXAMINER

**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING  
NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

Applicant must file the items indicated below within the time period set the Office action to which th Notice is attached to avoid abandonment under 35 U.S.C. § 133 (extensions of time may be obtained under the provisions of 37 CFR 1.136(a)).

The nucleotide and/or amino acid sequence disclosure contained in this application does not comp with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

- 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to the final rulemaking notice published at 55 FR 18230 (May 1, 1990), and 1114 OG 29 (May 15, 1990). If the effective filing date is on or after July 1, 1998, see the final rulemaking notice published at 63 FR 29620 (June 1, 1998) and 1211 OG 82 (June 23, 1998).
- 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
- 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- 6. The paper copy of the "Sequence Listing" is not the same as the computer readable from of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
- 7. Other: Sequences are disclosed in the specification but are not identified by their sequence identifiers (i.e. SEQ ID NO). Since the specification discloses sequences that are not identified by their sequence identifier, it is unclear if all disclosed sequences are included in the sequence listing. Applicant is advised that, a substitute CRF and substitute paper copy of the Sequence Listing are required only if the sequences are not already included in the Sequence Listing. Applicant is reminde that the entire specification and figures should be reviewed for sequence disclosures. Applicant is furth reminded that amendment to the specification, and/or figures is required to comply with 37 C.F.R. 1.821(d).

**Applicant Must Provide:**

- An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry in the specification.
- A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:

For Rules Interpretation, call (703) 308-4216

For CRF Submission Help, call (703) 308-4212

PatentIn Software Program Support

Technical Assistance.....703-287-0200

To Purchase PatentIn Software.....703-306-2600

**PLEASE RETURN A COPY OF THIS NOTICE WITH YOUR REPLY**

A reply to a notice to comply with the sequence rules should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office because mail sent to this zip code is destined for irradiation. The following information is also provided on the website.

Please direct all replies to the United States Patent and Trademark Office via one (1) of the following:

1. Electronically submitted through EFS-Bio  
(<http://www.uspto.gov/ebc/efs/downloads/documents.htm>),  
EFS Submission User Manual - ePAVE)

2. Mailed to:  
**U.S. Patent and Trademark Office**  
**Box Sequence, P.O. Box 2327**  
**Arlington, VA 22202**

3. Mailed by Federal Express, United Parcel Service or other delivery service to:  
**U. S. Patent and Trademark Office**  
**2011 South Clark Place**  
**Customer Window, Box Sequence**  
**Crystal Plaza Two, Lobby, Room 1B03**  
**Arlington, Virginia 22202**

4. Hand Carried directly to the Customer Window at:  
**2011 South Clark Place**  
**Crystal Plaza Two, Lobby, Room 1B03, Box Sequence,**  
**Arlington, Virginia 22202**